AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original) A method of generating an optical signal comprising the steps of:

generating an optical signal by using a laser

using a NRZ-signal with a defined bit rate and a sinusoidal signal with half of the frequency of the bit rate to modulate the optical signal.

2. (Original) The method according to claim 1, wherein in a step said optical signal is modulated by using said NRZ-signal and wherein in another step said optical signal is modulated by using said sinusoidal signal.

3. (Original) The method according to claim 1, wherein said NRZ-signal and said sinusoidal signal are combined before modulating said optical signal.

4. (Original) A method of generating an optical MSK signal comprising the steps of:

generating an optical signal by using a laser

using a first bipolar RZ-signal with a defined bit rate and a second RZ-signal with identical bit-rate, wherein the second signal is delayed, to modulate the optical signal.

5. (Original) The method according to claim 4, wherein said first bipolar RZ-signal and said second RZ-signal are combined before modulating said optical signal.

6. (Original) A method for precoding a bit stream for an optical transmitter, wherein bits of a differential encoded bit stream are inverted according to a predefined pattern.

7. (Original) The method according to claim 6, wherein every 3rd and 4th bit of the bit stream are inverted.

8. (Original) The method according to claim 6, wherein the bit stream is delayed and/or combined with a clock signal, in particular by B/4.

9. (Original) The method according to claim 8, wherein the sinusoidal signal is phased shifted and/or frequency divided.

10. (Original) The method according to claim 8, wherein the bit stream is delayed by the reciprocal of the transfer rate.

11. (Original) The method according to claim 8, wherein the combination is done by an EXOR operation.

12. (Currently Amended) The method according to claim 6, ~~wherein the method is combined with the method according to claim 1 and/or claim 3 and/or claim 5~~ further comprising the steps of:

generating an optical signal by using a laser

using a NRZ-signal with a defined bit rate and a sinusoidal signal with half of the frequency of the bit rate to modulate the optical signal.

13. (Original) A circuitry to generate an optical MSK signal comprising:

a laser generating an optical signal

means to generate a NRZ-signal with a defined bit rate

means to generate a sinusoidal signal with half of the frequency of the bit rate

means to modulate the optical signal by using the output of said means to generate the NRZ-signal and said means to generate the sinusoidal signal.

14. (Original) The circuitry according to claim 13, wherein a combining means combines the output of said means to generate the NRZ-signal and the output of said means to generate the sinusoidal signal.

15. (Original) The circuitry according to claim 13, wherein a circuitry according to claim 19 is integrated.

16. (Original) A circuitry to generate an optical MSK signal comprising:

a laser generating an optical signal

means to generate a first bipolar RZ-signal with a defined bit rate

means to generate a second RZ-signal with identical bit-rate, wherein the second signal is delayed,

means to modulate the optical signal by using the output of said means to generate said first bipolar RZ-signal and the output of said means to gener-ate said second RZ-signal.

to modulate the optical signal.

17. (Original) The circuitry according to claim 16, wherein a means to combine said first bipolar RZ-signal and said second RZ-signal passes the signal to said means to modulate the optical signal.

18. (Original) The circuitry according to claim 16, wherein a circuitry according to claim 19 is integrated.

19. (Original) A circuitry for an optical MSK transmitter, for the modulation of a laser generated optical signal, comprising:

means to differential precode a bit stream transported by a NRZ-signal,

means to invert bits of the bit stream according to a predefined pattern.

20. (Original) The circuitry according to claim 19, wherein the means invert every 3rd and 4th bit of the bit stream.

21. The circuitry according to claim 19, wherein means for delaying the NRZ-Signal and/or means for combing a clock signal B/4 with the NRZ-Signal are integrated.

22. (Original) The circuitry according to claim 21, wherein the means for delaying the bit stream are configured by delaying the bit stream by the reciprocal of the transfer rate.

23. (Original) The circuitry according to claim 21, wherein the means for combining is an EXOR-gate.

24. (Original) The circuitry according to claim 19, wherein means for phase shifting the clock signal and/or means for frequency dividing the clock signal are integrated.

25. (New) The method according to claim 12, wherein said NRZ-signal and said sinusoidal signal are combined before modulating said optical signal.

26. (New) The method according to claim 6, further comprising the steps of:

generating an optical signal by using a laser; and

using a first bipolar RZ-signal with a defined bit rate and a second RZ-signal with identical bit-rate, wherein the second signal is delayed, to modulate the optical signal, and

wherein said first bipolar RZ-signal and said second RZ-signal are combined before modulating said optical signal.